## **ABSTRACT**

An apparatus for and method of conducting a nerve conduction study is provided. In response to predetermined stimulation from an excitation device, a signal is generated that travels through a human body. The apparatus includes a sensing electrode operatively engagable with the human body downstream of the excitation device for sensing the signal. The apparatus further includes a pressure mounting structure operatively connected to the sensing electrode for controlling the pressure at which the sensing electrode engages the body. The pressure mounting structure includes a pressure source and a pressure sensor. A controller receives a pressure signal from the pressure sensor and the signal from the sensor electrode. The controller includes software to normalize the amplitude of the signal based on the pressure at which the sensing electrode engages the body.

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